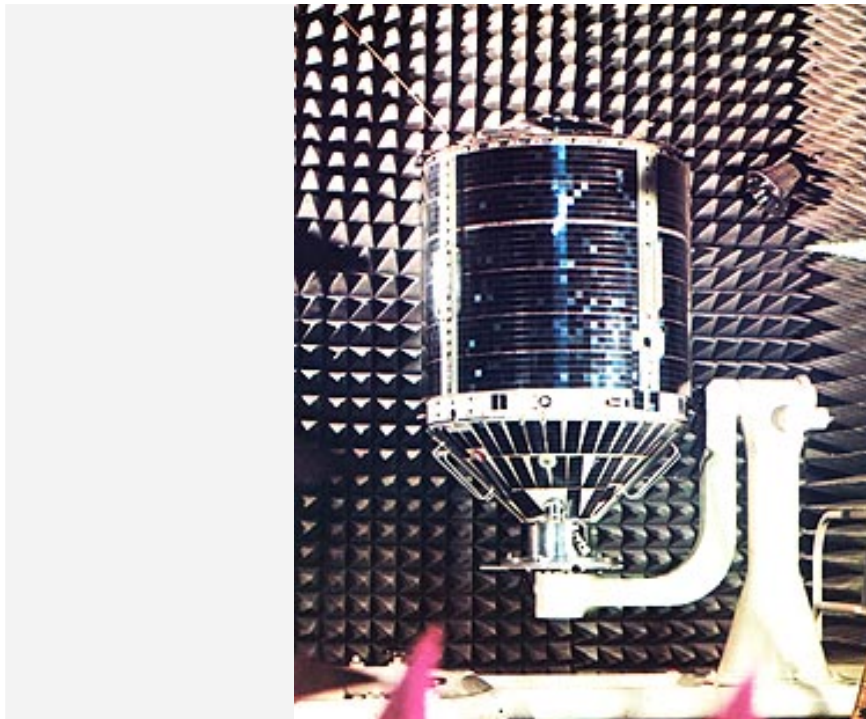

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When did the first German satellite go into space?

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The first German satellite – AZUR

The first German satellite, AZUR, was launched 40 years ago. On 8 November 1969 at 02:52 Central European Time (CET), which was 7 November at 17:52 Pacific Standard Time (PST), a four-stage American Scout-B rocket took off from the launch site at Vandenberg Air Force Base in California – with Germany's first scientific spacecraft on board.

The successful launch and operation of AZUR was a great technological advance for German space research and turned Germany into a space-faring nation - until then, only the Soviet Union, the USA, France, Great Britain, Italy, Canada, Japan and Australia had their own satellites.

AZUR – also known as 'German Research Satellite-1' (GRS-1) – had a mass of 72.6 kilograms, a length of 115 centimetres and a diameter of 66.2 centimetres. It was placed in a highly elliptical polar orbit – the nearest point to Earth (perigee) of its orbit was 391 kilometres from the Earth, while its furthest point from Earth (apogee) was 3,228 kilometres. AZUR's orbital inclination with respect to the Equator was 102.9 degrees and each orbit took 122.7 minutes.

A relatively short but successful excursion into space

To carry out seven carefully chosen experiments, scientific equipment weighing a total of 17 kilograms was housed on board AZUR. It was used to investigate cosmic radiation and the way it interacted with Earth's magnetosphere, with the upper atmosphere and, in particular, with the Van Allen belt. AZUR was also used to conduct research into the Aurora Borealis (northern lights) and the variation in solar wind during solar eruptions.

On 29 June 1970, for unknown reasons, the connection to AZUR was lost. It is assumed that radiation damaged the data transmission system. Although the planned service life of one year was not reached, instead lasting just 233 days, the project was nonetheless seen as a great scientific and technological success for Germany – the country had taken its first step into space.

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